What is claimed is:

1. A protective pad comprising:

a shell having a concave interior surface and a convex outer surface adjoined by a perimeter edge;

a pre-tensioned resilient padded membrane; and

an elastic suspension arrangement adjoining said pre-tensioned resilient padded membrane about the perimeter edge of said shell to define a cavity between said shell and said pre-tensioned resilient padded membrane.

2. A protective pad as recited in claim 1, wherein said pre-tensioned resilient padded membrane being stretched in multiple directions prior to being elastically suspended at said shell, and said elastic suspension arrangement further comprising a resilient bonding material, so that a trampoline-type unit is formed by said shell, pre-tensioned resilient padded membrane and elastic suspension arrangement.

3. A protective pad as recited in claim 2, wherein said resilient bonding material is provided at an outer area of engagement between said shell and said pre-tensioned resilient padded membrane.

4. A protective pad as recited in claim 2, wherein said resilient bonding material extends to or substantially covers an exterior of said shell.

5. A protective pad as recited in claim 4, wherein said resilient bonding material is provided at an outer area of engagement of said shell with said pre-tensioned resilient padded membrane.

6. A protective pad as recited in claim 2, wherein said resilient bonding material extends to or substantially covers said tensioned resilient padded membrane.

7. A protective pad as recited in claim 6, wherein said resilient bonding material is provided at an outer area of engagement of said shell with said pre-tensioned resilient padded membrane.

8. A protective pad as recited in claim 3, wherein said resilient bonding material is provided at an inner area of engagement of said shell with said pre-tensioned resilient padded membrane.

9. A protective pad as recited in claim 8, wherein said resilient bonding material extends to an exterior of said shell.

10. A protective pad as recited in claim 2, wherein said shell further comprising an integral shell flange outwardly extending from an outer periphery thereof and configured for engaging said resilient bonding material.

11. A protective pad as recited in claim 10, wherein said resilient bonding material is provided at inner and outer areas of engagement of said flange with said tensioned resilient padded membrane.

12. A protective pad as recited in claim 10, wherein said resilient bonding material is sandwiched between said flange and said pre-tensioned resilient padded membrane.

13. A protective pad as recited in claim 8, wherein the resilient bonding material provided at said outer area of engagement of said shell and said padded membrane extends completely around an edge of said pre-tensioned resilient padded membrane.

14. A protective pad as recited in claim 8, wherein said padded membrane has an opening extending therethrough and configured for engaging a human joint.

15. A pad for protecting a joint of a human limb, comprising:

a shell having a convex outer surface, a concave inner surface having a contour complementing the joint of said human limb, and an outer edge adjoining said inner and outer surfaces;

a pre-tensioned resilient padded membrane; and

an elastic suspension arrangement adjoining said pre-tensioned resilient padded membrane about the edge of said shell to define a cavity between said shell and said pre-tensioned resilient padded membrane.

16. A joint pad as recited in claim 15, wherein a said tensioned resilient padded membrane being stretched in multiple directions prior to being suspended at said shell, said elastic suspension arrangement further comprises a resilient bonding material, so that a trampoline-type unit is formed by said shell, pre-tensioned resilient padded membrane and elastic suspension arrangement.

17. A joint pad as recited in claim 16, wherein said resilient bonding material is provided at an outer area of engagement of said shell with said pre-tensioned resilient padded membrane.

18. A joint pad as recited in claim 16, wherein said resilient bonding material is provided at an inner area of engagement of said shell with said pre-tensioned resilient padded membrane.

19. A joint pad as recited in claim 18, wherein said resilient bonding material is provided at an outer area of engagement of said shell with said pre-tensioned resilient padded membrane.

20. A joint pad as recited in claim 17, wherein said resilient bonding material extends to the convex outer surface of said shell.

21. A joint pad as recited in claim 19, wherein said resilient bonding material extends to or covers the convex outer surface of said shell.

22. A joint pad as recited in claim 19, wherein said resilient bonding material substantially covers said tensioned resilient padded membrane.

23. A helmet comprising:

a generally hemispherical shell having a convex outer surface and a concave inner surface adjoined by an edge;

a pre-tensioned resilient padded membrane; and

an elastic suspension arrangement adjoining said pre-tensioned resilient padded membrane about the edge of said shell to define a cavity between said shell and said pre-tensioned resilient padded membrane.

24. A helmet as recited in claim 23, wherein said elastic suspension means further comprises a resilient bonding material.

25. A helmet as recited in claim 24, wherein said resilient bonding material extends to or substantially covers said convex outer surface.

26. A shoulder pad comprising:

a shell having a convex outer surface, a concave inner surface and an edge defining a chest cover portion, a back cover portion and a neck notch between said chest cover portion and said back cover portion;

a pre-tensioned resilient padded membrane; and

an elastic suspension means adjoining said pre-tensioned resilient padded membrane about the edge of said shell to define a cavity between said shell and said pre-tensioned resilient padded membrane.

27. A shoulder pad as recited in claim 26, wherein said elastic suspension arrangement further comprises a resilient bonding material.

28. A shoulder pad as recited in claim 27, wherein said resilient bonding material extends to or substantially covers said convex outer surface of said shell.

29. A method for fabricating a protective pad, comprising the steps of:

providing a resilient padded membrane;

stretching said resilient padded membrane into a tensioned state;

tensionally suspending said stretched resilient padded membrane in a transverse plane;

positioning a shell over said tensionally suspended resilient padded membrane; and

adjoining said shell to said tensioned padded membrane by an elastic suspension arrangement such that a cavity is formed between said shell and said tensionally-suspended resilient padded membrane.

30. A method as recited in claim 29, wherein in said step of stretching said padded membrane is stretched in multiple directions, and said elastic suspension means further comprises resilient bonding material, so that a trampoline-type unit is formed by said shell, pre-tensioned resilient padded membrane and elastic suspension arrangement.

31. A method as recited in claim 30, wherein said tensionally-suspended resilient padded membrane engages said shell, the method further comprising in the formation of said elastic suspension arrangement said resilient bonding material is provided at an outer area of engagement of said tensionally-suspended resilient padded membrane with said shell.

32. A method as recited in claim 31, wherein the step of adjoining further comprising providing said resilient bonding material at an inner area of engagement of said tensionally-suspended resilient padded membrane with said shell.

33. A method as recited in claim 32, wherein said tensionally-suspended resilient padded membrane has an outer surface, the method further comprising the step of providing said resilient bonding material on said outer surface.